

Observations beyond the CART site such as in the proposed multiscale experiment are needed to address these issues.

2.6 Aviation Weather Program (AWP)

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The Aviation Weather Program (AWP) combines additional weather observations, improved forecast technology, and more efficient distribution of information to pilots, controllers, and automated systems to improve the weather information provided to the air traffic control system, pilots, and other users of aviation weather information (e.g., dispatchers and airport operators). Specific objectives include the needs to:

- Improve airport and en-route capacity by accurate, high resolution, timely forecasts of changing weather conditions affecting airport and en-route operations (e.g., ceilings and visibility).
- Improve analyses and forecasts of upper-level winds for efficient flight planning and traffic management.
- Increase flight safety through improved aviation weather hazard forecasting (e.g., icing, turbulence, severe storms, microbursts, or strong winds).

The AWP would benefit from participation in a cooperative multiscale experiment by obtaining data for: evaluation of aviation weather forecast products (e.g., ceilings and visibility, thunderstorm occurrences, and weather hazards), analysis or four dimensional data assimilation schemes, and experimental techniques for retrieving aerosol and other visibility parameters. A multiscale experiment would also be helpful to AWP by making it possible to evaluate the added benefit of enhanced data sets collected during the experiment on those forecast and analysis products. The goals of the CME are an essential step in attaining the long-term AWP objective of providing two-to-four hour location-specific forecasts of significant weather. Although the possibility of a funding role for the AWP in the Cooperative Multiscale Experiment is presently unclear, modest involvement of Federal Aviation Administration (FAA)/AWP personnel (particularly FAA-supported modeling work) could be expected.